WE CLAIM:

1. A sample handler for retaining a plurality of sample fluids, said handler comprising:

sample handling means for retaining a plurality of sample fluids; and

a plurality of metering tips retained by said sample handling means, each of said metering tips having a sealable dispense end and retaining a volume of test fluid, each of said metering tips when sealed serving as a sample container for use with at least one chemistry system of a clinical analyzer.

2. A sample handler as recited in Claim 1, wherein said sample handling means includes a plurality of first tip receiving stations, each of said first tip receiving stations being sized to retain a sealed metering tip.

3. A sample handler as recited in Claim 1, including sealing means for sealing each of said metering tips.

4. A sample handler as recited in Claim 3, wherein said sealing means includes a heated element disposed in relation to said sample handling means.

5. A sample handler as recited in Claim 1, including tip supply means for retaining a plurality of unsealed metering tips.

6. A sample handler as recited in Claim 1, including means for testing the sample retained within a said sealed metering tip.

7. A sample handler as recited in Claim 6, wherein said testing means includes a spectrophotometer.

8. A sample handler as recited in Claim 1, wherein said sample retaining means includes a first ring, said first ring having a plurality of first tip retaining stations.

9. A sample handler as recited in Claim 8, including tip supply means for retaining a plurality of unsealed metering tips, said tip supply means including a second ring having a plurality of second tip retaining stations.

10. A sample handler as recited in Claim 9, wherein said first ring and said second ring are concentric.

11. A sample handler as recited in Claim 10, wherein each of said first and second rings are independently driven about a common axis of rotation.

12. A sample handler as recited in Claim 11, wherein each of said rings are bidirectionally rotatable about said common axis of rotation.

13. A sample handler as recited in Claim 8, including a cover for covering said first ring.

14. A sample handler as recited in Claim 13, wherein said cover includes at least one aspiration station aligned with said plurality of first tip retaining stations.

15. A clinical analyzer for testing patient fluids, said analyzer comprising:
a housing:
at least one chemistry system retained within said housing;
first sample handling means for handling a plurality of first patient sample containers; and
second sample handling means for retaining a plurality of second patient sample containers, each of said sample handling means being interconnected with said at least one said chemistry system.

16. The clinical analyzer of Claim 15, including first conveying means for conveying a quantity of sample from said first sample handling means to said at least one chemistry system.

17. The clinical analyzer of Claim 16, wherein said first conveying means utilizes at least one metering tip, said metering tip being sized for aspirating a quantity of sample from a first sample container through a dispense end thereof.

18. The clinical analyzer of Claim 17, wherein second sample handling means comprises said at least one metering tip having aspirated sample from said first sample container.

19. The clinical analyzer of Claim 18, including means for sealing the dispense end of each of said metering tips containing aspirated sample prior to moving a said tip to said second sample handling means.

20. The clinical analyzer of Claim 18, including means for optically testing the contents of each of said metering tips.

21. The clinical analyzer of Claim 19, wherein said optical testing means are disposed within said second sample handling means.

22. The clinical analyzer of Claim 18, wherein said second sample handling means further includes a supply of unsealed metering tips, said supply of metering tips being interconnected to said first conveying means.

23. The clinical analyzer of Claim 19, wherein each of said metering tips are disposable.

24. The clinical analyzer of Claim 18, including a dump station for the second patient sample containers following use thereof.

25. The clinical analyzer of Claim 19, wherein said second sample handling means includes at least one ring member, said at least one ring member having a plurality of stations for retaining a corresponding number of sealed metering tips, said at least one ring member being rotatably supported for movement about an axis of rotation.

26. The clinical analyzer of Claim 25, including means for rotatably driving said at least one ring member bidirectionally about said axis of rotation.

27. The clinical analyzer of Claim 25, wherein said second sample handling means includes a pair of concentric ring members, each of said ring members being rotatable about a common axis of rotation.

28. The clinical analyzer of Claim 27, wherein each of said concentric ring members are driven independently of one another.

29. The clinical analyzer of Claim 28, wherein one of said ring members includes a plurality of stations, each station being sized for supporting a sealed sample containing metering tip.

30. The clinical analyzer of Claim 29, wherein the other of said ring members includes a plurality of stations for supporting a plurality of unsealed metering tips, at least one station of said ring member being disposed along a travel path of said first conveying means to permit an unsealed metering tip to be conveyed to said first sample handling means to permit aspiration thereof.

31. The clinical analyzer of Claim 19, including second conveying means for conveying sample contained in said at least one sealed metering tip in said second sample handling means to said at least one chemistry system for testing thereof.

32. The clinical analyzer of Claim 18, wherein said first conveying means includes metering means for dispensing a portion of sample aspirated from said metering tip to a said chemistry system and then for conveying said tip to said second sample handling means.

33. The clinical analyzer of Claim 19, wherein said tip sealer includes a heated element for fusing the dispense end of a sample containing metering tip.

34. The clinical analyzer of Claim 21, wherein said second sample handling means includes at least one ring member, said at least one ring member having a plurality of stations for retaining said second sample containers, said optical testing means being disposed in relation to a predetermined position of said ring member.

35. The clinical analyzer of Claim 34, further including a mechanism to align a lifted second sample container with an optical instrument of said optical testing means.

36. The clinical analyzer of Claim 35, wherein said optical instrument is a spectrophotometer.

37. The clinical analyzer of Claim 15, wherein said second sample handling means includes a ring member having a plurality of stations, said rotor being supported for rotation about an axis of rotation, said ring member being aligned with first and second conveying means for conveying sample from said second sample containers to said at least one chemistry system.

38. The clinical analyzer of Claim 25, including at least one sensor or detecting whether station of said second sample handling means is empty prior to the placement of a sealed sample containing metering tip therein.

39. The clinical analyzer of Claim 38, wherein said at least one sensor further detects whether said sealed tip has been successfully placed in the second sample handling means by said first conveying means.

40. The clinical analyzer of Claim 30, wherein the supply of unsealed metering tips is provided in an outer ring member and said second sample handling means is provided in an inner ring member.

41. A buffer for interconnecting respective chemistry systems of a combinational clinical analyzer having a primary sample supply, said buffer comprising:

sealed tip retaining means for retaining a plurality of sealable

metering tips, each of said tips containing a quantity of sample aspirated from said primary sample supply, said buffer acting as an auxiliary sample supply in connection with at least one of said chemistry systems.

42. The buffer of Claim 41, including sealing means for sealing a dispense end of each of said metering tips containing aspirated sample.

43. The buffer of Claim 42, including test means for optically testing the contents of each of said sealable metering tips.

44. The buffer of Claim 41, including unsealed tip retaining means for retaining a supply of unsealed metering tips, said supply of metering tips being interconnected to a first conveying means of said analyzer linking said metering tip supply to said primary sample supply.

45. The buffer of Claim 42, including a dump station for the sealed metering tips following use thereof.

46. The buffer of Claim 41, wherein said sealed tip retaining means includes at least one ring member, said at least one ring member having a plurality of stations for retaining said plurality of sealed metering tips, said at least one ring member being rotatably supported for movement about an axis of rotation.

47. The buffer of Claim 46, including means for rotatably driving said at least one ring member bidirectionally about said axis of rotation.

48. The buffer of Claim 46, including a pair of concentric ring members, each of said rings being rotatable about a common axis of rotation.

49. The buffer of Claim 48, wherein each of said concentric ring members are driven independently of one another.

50. The buffer of Claim 49, wherein one of said ring members includes a plurality of stations, each station being sized for supporting a sealed sample containing metering tip.

51. The buffer of Claim 50, wherein the other of said ring members includes a plurality of stations for supporting a supply of unsealed metering tips, at least one station of said ring member being disposed along a travel path of a first conveying means linking said tip supply with said primary sample supply to permit an unsealed metering tip to be conveyed to said primary sample supply to permit aspiration of fluid.

52. The buffer of Claim 51, wherein said analyzer includes second conveying means for conveying sample contained in said at least one sealed metering tip in said buffer to at least one of said dry and wet chemistry system for testing thereof.

53. The buffer of Claim 42, wherein said sealing means includes a heated element for fusing the dispense end of a sample containing metering tip.

54. The buffer of Claim 43, including at least one ring member having a plurality of stations for retaining said sealed metering tips, said optical testing means being disposed in relation to a predetermined position of said ring member.

55. The buffer of Claim 54, further including means for aligning a second sample container with an optical instrument of said optical testing means.

56. The buffer of Claim 55, wherein said optical instrument is a spectrophotometer.

57. The buffer of Claim 41, wherein said sealed tip retaining means includes a ring having a plurality of stations, said ring member being supported for rotation about an axis of rotation and aligned with first and second conveying means of said analyzer for conveying sample from at least one sealed metering tips to each of said chemistry systems.

58. The buffer of Claim 50, including at least one sensor or detecting whether a predetermined station of said buffer is empty prior to the placement of a sealed sample containing metering tip therein by said first conveying means.

59. The buffer of Claim 58, wherein said at least one sensor further detects whether said tip has been successfully placed in the buffer by said first conveying means.

60. The buffer of Claim 51, wherein the supply of unsealed metering tips is provided in an outer ring member and said plurality of sealed metering tips is provided in an inner ring member each of said rings being concentric.

61. A method for coordinating the use of a clinical analyzer, said analyzer having at least one contained chemistry system, said method including the steps of:
introducing a quantity of sample fluid into at least one metering tip;
sealing the dispense end of said at least one metering tip; and
utilizing said at least one sealed metering tip as a sample container for use with said at least one contained chemistry system of said analyzer.

62. A method as recited in Claim 61, wherein said introducing step includes the step of aspirating a quantity of sample fluid from a primary sample supply into said at least one metering tip.

63. A method as recited in Claim 62, wherein said primary sample supply includes a plurality of primary sample containers, said utilizing step includes the step of using said at least one metering tip as a secondary sample container.

64. A method as recited in Claim 62, including the step of dispensing a quantity of sample fluid for use in a chemistry system of said analyzer prior to said sealing step.

65. A method as recited in Claim 61, wherein said analyzer includes at least one dry chemistry system and at least one wet chemistry system.

66. A method as recited in Claim 65, wherein said at least one sealed tip is used in conjunction with the wet chemistry system of said analyzer.

67. A method as recited in Claim 61, including the step of testing the fluid contents contained within said at least one metering tip after said sealing step.

68. A method as recited in Claim 61, wherein said utilizing step includes the step of selectively aspirating a quantity of sample from said at least one sealed metering tip for use in said at least one contained chemistry system of said analyzer.

69. A method as recited in Claim 61, including the step of providing a plurality of sealed metering tips in an handling assembly, said assembly including a plurality of stations each sized for receiving a sealed metering tip.

70. A method as recited in Claim 69, including the step of conveying an unsealed metering tip to a first sample container from a tip supply prior to said aspiration step.

71. A method as recited in Claim 70, wherein said tip supply is provided on said handling assembly.

72. A method as recited in Claim 61, including the step of selectively disposing of said at least one sealed metering tip after a predetermined number of utilizing steps.

73. A method as recited in Claim 68, including the step of rotating said handling assembly in either a first direction or an opposite second direction relative to a rotational axis to move at least one sealed metering tip to an aspiration station.